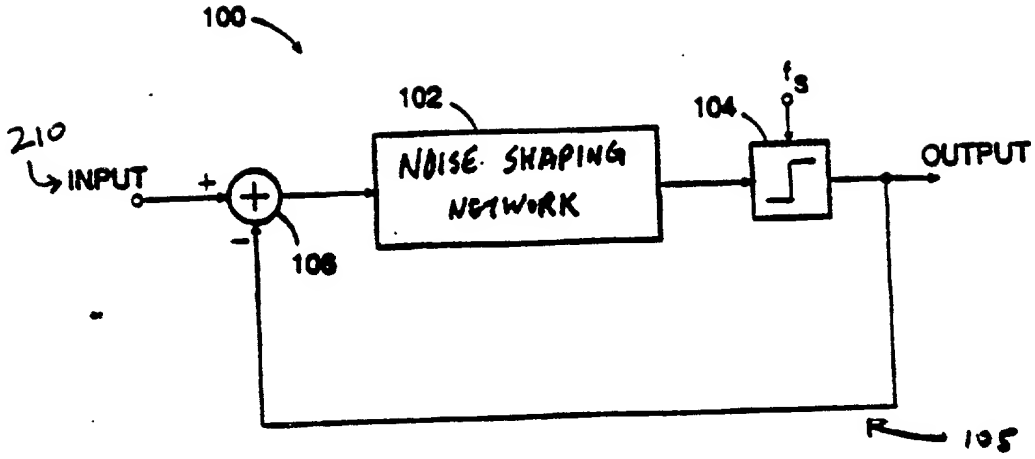
FIG. 1



PRIOR ART

FIG. 2A

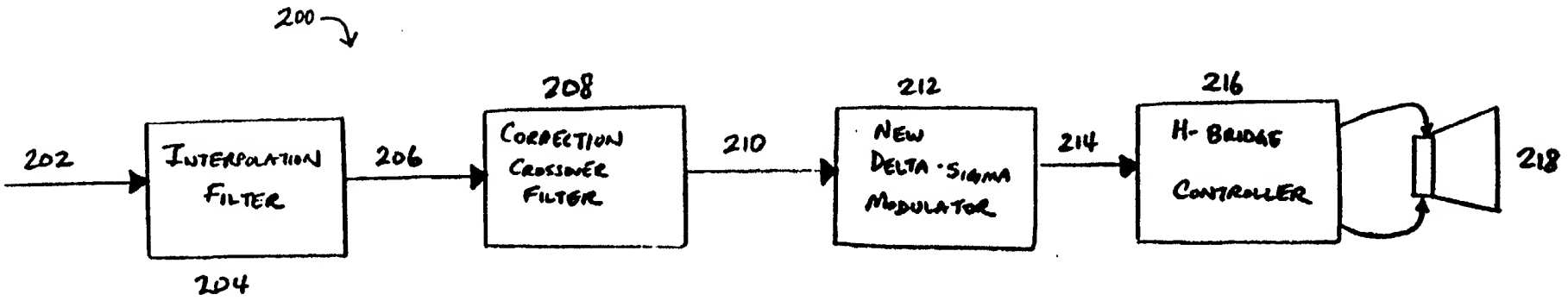

200
202
INTERPOLATION FILTER
204
206
208
CORRECTION CROSSOVER FILTER
210
212
NEW DELTA-SIGMA MODULATOR
214
216
H-BRIDGE CONTROLLER
218

FIG. 2B

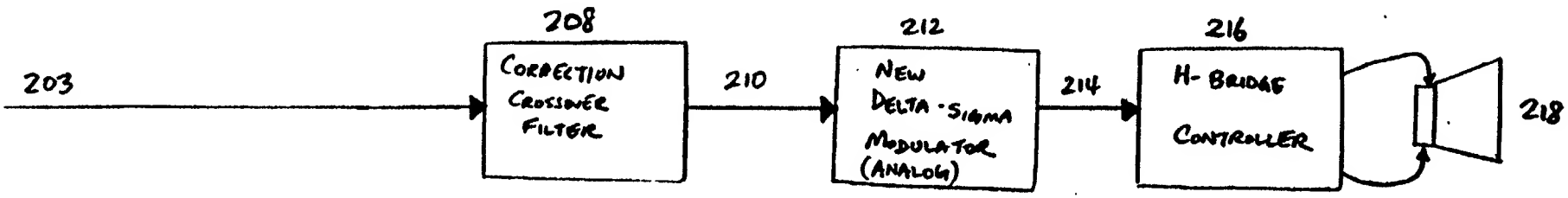

208
212
216
203
CORRECTION CROSSOVER FILTER
210
NEW DELTA-SIGMA MODULATOR (ANALOG)
214
H-BRIDGE CONTROLLER
218

FIG. 3

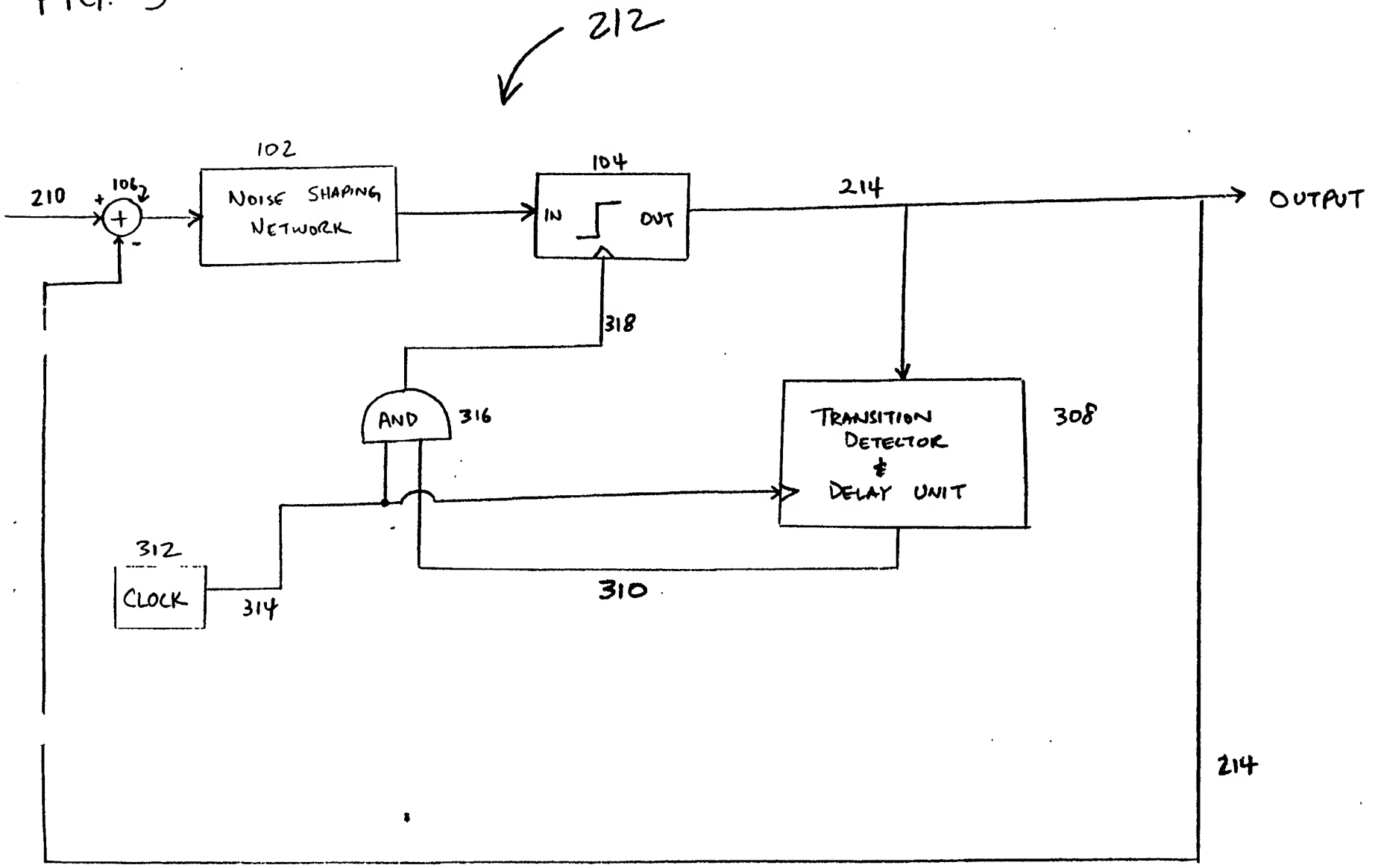

212
102
NOISE SHAPING NETWORK
104
IN
OUT
210
106
214
OUTPUT
318
AND
316
TRANSITION DETECTOR & DELAY UNIT
308
312
CLOCK
314
310
214

FIG 4

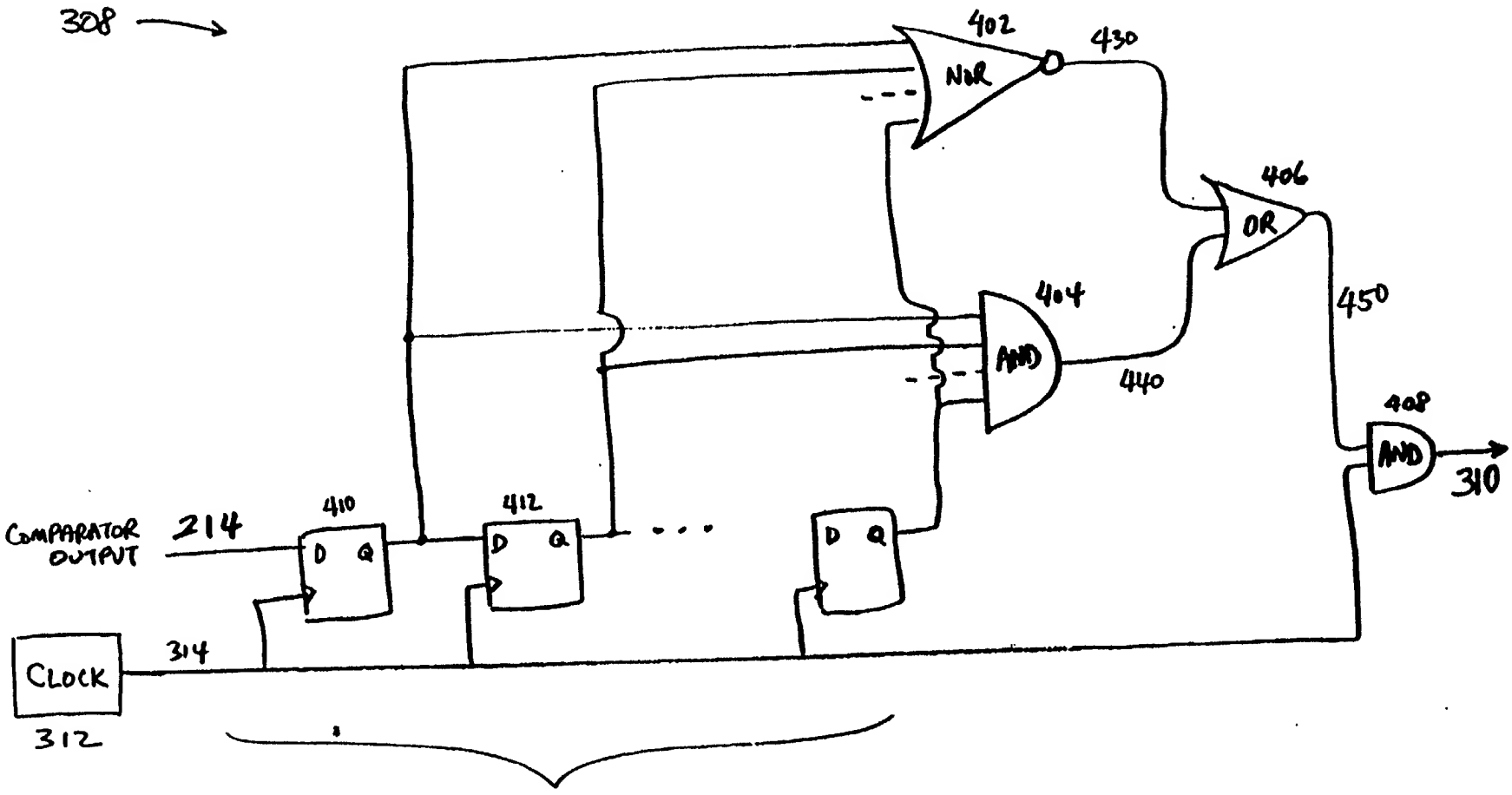
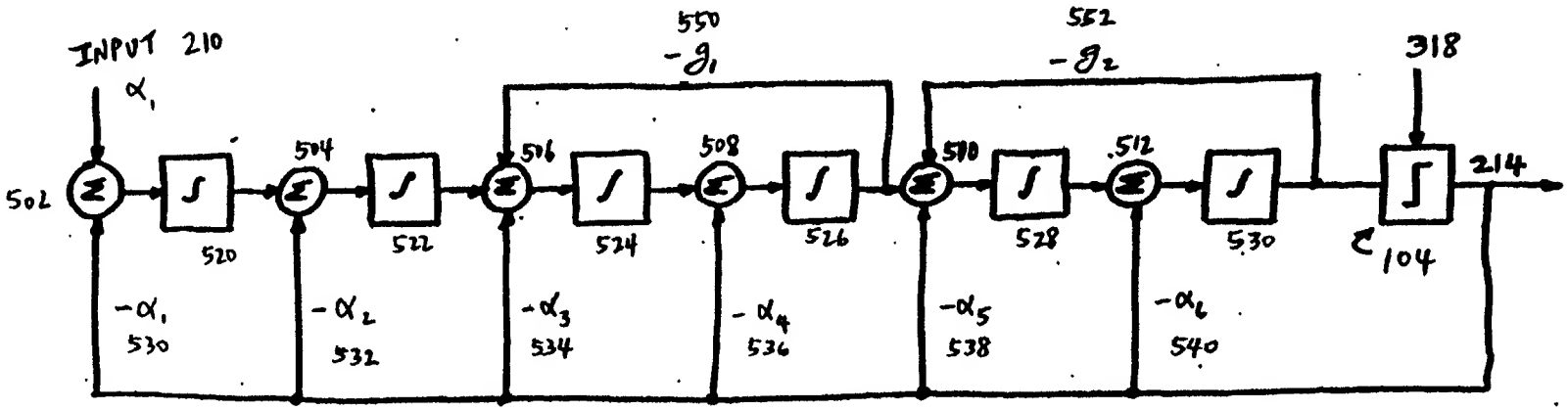

308
402
NOR
430
406
OR
404
AND
450
440
408
AND
310
COMPARATOR OUTPUT
214
410
412
D Q
D Q
D Q
CLOCK
314
312
N FLIP FLOPS

FIG. 5


INPUT 210
α_1
550
$-g_1$
552
$-g_2$
318
502
504
506
508
510
512
214
520
522
524
526
528
530
104
$-\alpha_1$
530
$-\alpha_2$
532
$-\alpha_3$
534
$-\alpha_4$
536
$-\alpha_5$
538
$-\alpha_6$
540

500

FIG. 6

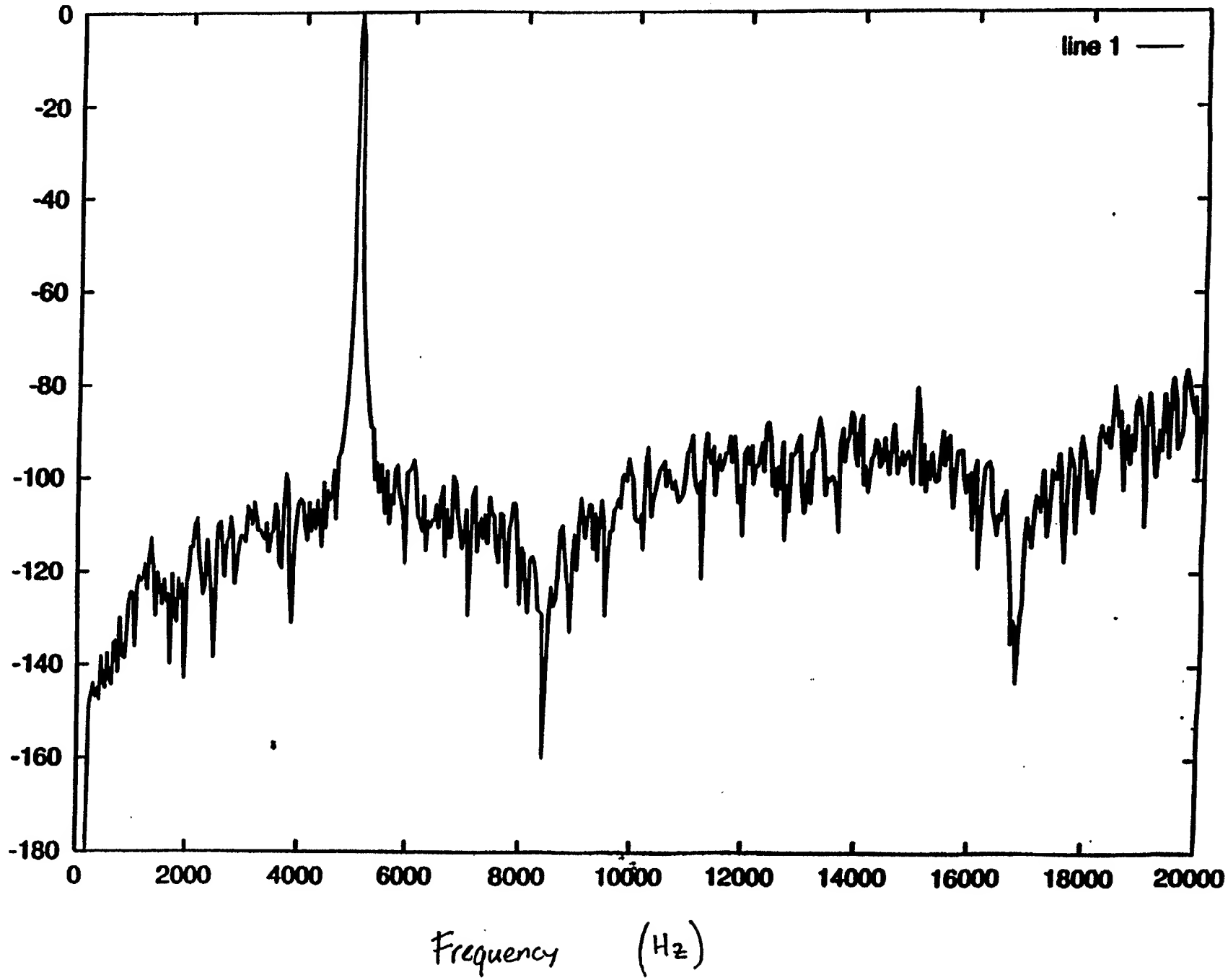

line 1
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
20000
Relative Amplitude (dB)
Frequency (Hz)

FIG. 7

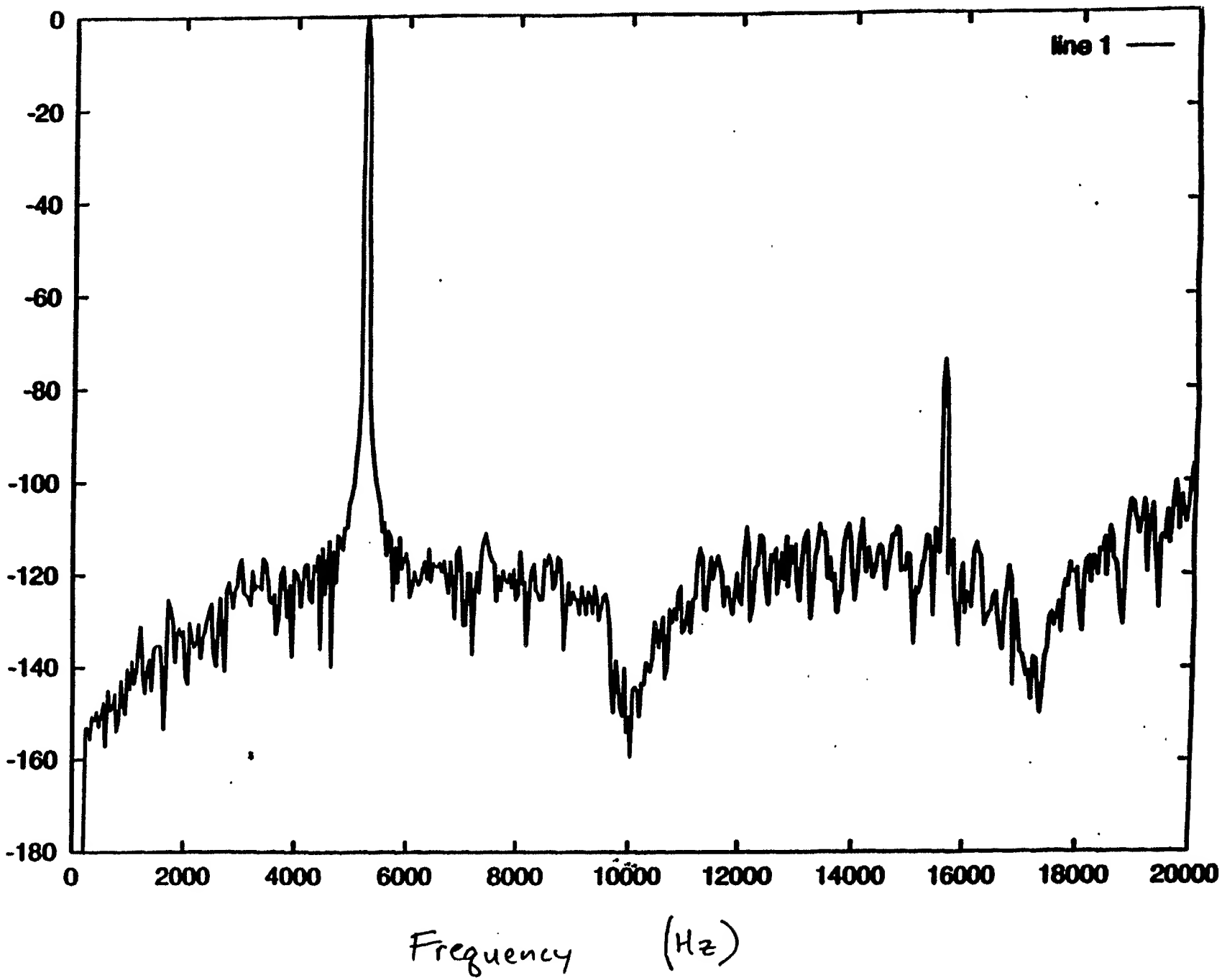
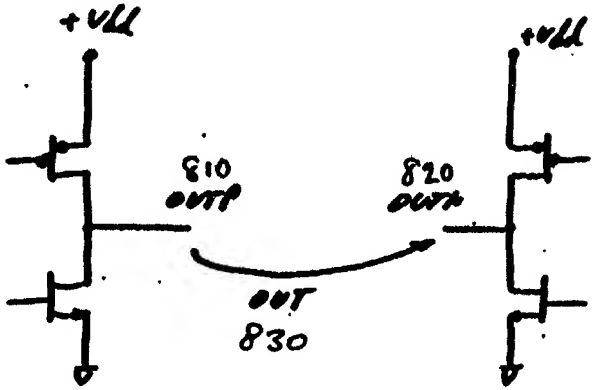

line 1
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
0
2000
4000
6000
8000
10000
12000
14000
16000
18000
20000
Relative Amplitude (dB)
Frequency (Hz)

FIG. 8



(PRIOR ART)

FIG 9

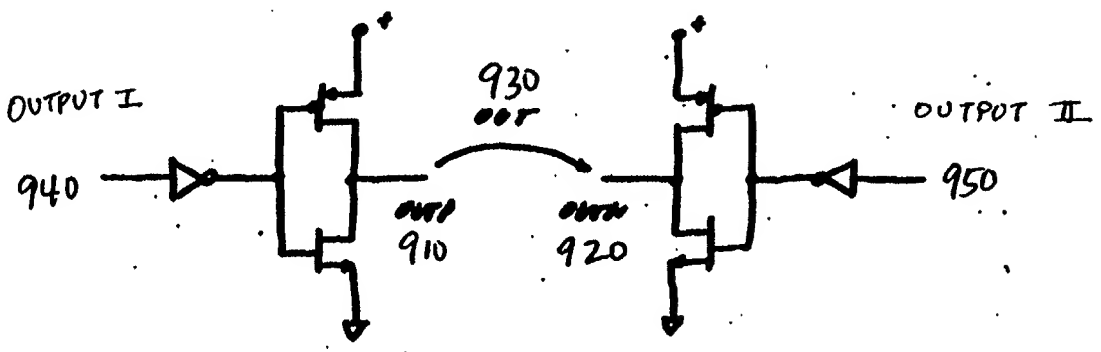
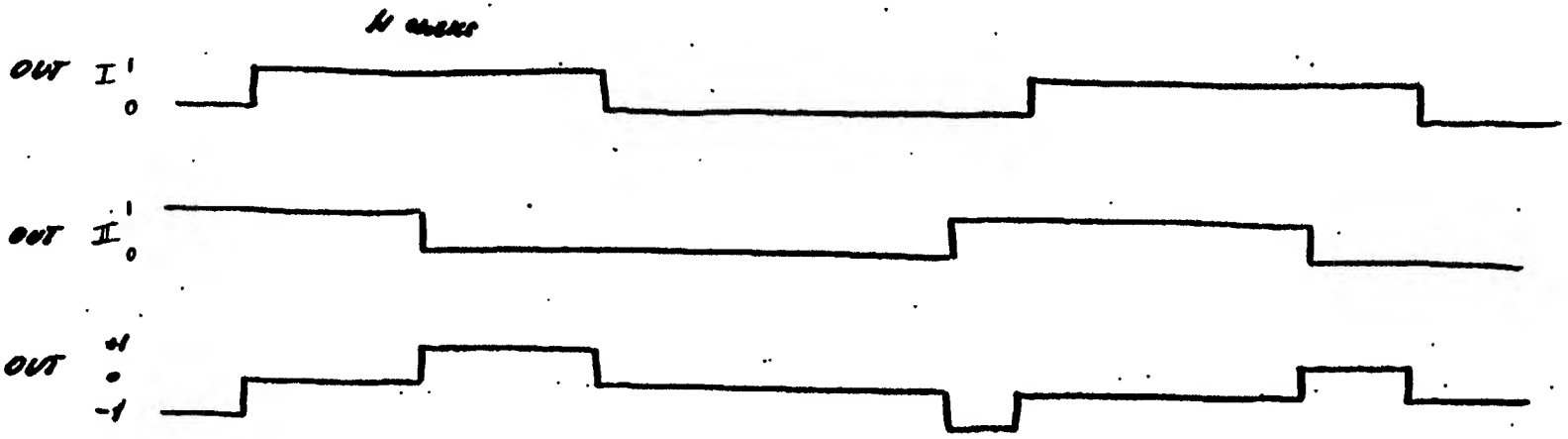



FIG. 10